AMENDMENT UNDER 37 CFR § 1.111

U. S. Application No. 10/540,839

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

Claim 1 (canceled).

2. (currently amended): A corrosion resistant member comprising a base material

selected from the group consisting of a heat-resistant glass, a metal and ceramics sprayed with a

corrosion resistant glass sprayed coating which is an aluminosilicate glass containing at least one

element selected from the group consisting of elements of the group 3a of the periodic table of

elements and which when expressed by an Si-Al-group 3a three-component triangular diagram,

has a composition such that the atomic ratio of the respective metal elements (Si:Al:group 3a) falls within the range connecting respective points of (70:20:10), (50:20:30), (30:40:30),

(30:50:20), (45:50:5) and (70:25:5).

sprayed with a corrosion resistant glass sprayed coating which is a zirconia silicate glass

containing at least one element selected from the group consisting of elements of the group 3a of

3. (previously presented): A corrosion resistant member comprising a base material

containing at least one element selected from the group consisting of elements of the group 3a of

the periodic table of elements and which when expressed by an Si-Zr-group 3a three-component

triangular diagram, has a composition such that the atomic ratio of the respective metal elements

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(Si:Zr:group 3a) falls within the range connecting respective points of (70:25:5), (70:10:20), (50:20:30), (30:40:30), (30:50:20) and (45:50:5).

- 4. (previously presented): A corrosion resistant member comprising a base material sprayed with a corrosion resistant glass sprayed coating which is a zirconia silicate glass containing at least one element selected from the group consisting of elements of the group 2a of the periodic table of elements and which when expressed by an Si-Zr-group 2a three-component triangular diagram, has a composition such that the atomic ratio of the respective metal elements (Si:Zr:group 2a) falls within the range connecting-respective points of (70:25:5), (45:25:30), (30:40:30), (30:50:20) and (50:45:5).
- 5. (currently amended): A corrosion resistant member comprising a base material sprayed with a corrosion resistant glass sprayed coating which is an aluminosilicate glass containing at least one element selected from the group consisting of elements of the group 3a of the periodic table of elements and which when expressed by an Si-Al-group 3a three-component triangular diagram, has a composition such that the atomic ratio of the respective metal elements (Si:Al:group 3a) falls within the range connecting respective points of (70:20:10), (50:20:30), (30:40:30), (30:50:20), (45:50:5) and (70:25:5) The corrosion resistant member as elaimed in elaim 2, wherein an interlayer of an SiO₂-containing glass sprayed coating is provided between the base material and the corrosion resistant glass sprayed coating.

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mutual melting each other.

6. (currently amended): The corrosion resistant member as claimed in claim 25, wherein an interface between the base material and the corrosion resistant glass sprayed coating, or any one of interfaces among the base material, the interlayer of an SiO₂-containing glass sprayed coating and the corrosion resistant glass sprayed coating forms a molten layer resulting from

7. (currently amended): A corrosion resistant member comprising a base material sprayed with a corrosion resistant glass sprayed coating which is an aluminosilicate glass containing at least one element selected from the group consisting of elements of the group 3a of the periodic table of elements and which when expressed by an Si-Al-group 3a three-component triangular diagram, has a composition such that the atomic ratio of the respective metal elements (Si:Al-group 3a) falls within the range connecting respective points of (70:20:10), (50:20:30), (30:40:30), (30:50:20), (45:50:5) and (70:25:5) The corrosion resistant member as elaimed in elaim-2, wherein the corrosion resistant glass sprayed coating has a surface roughness Ra of from 0.01 to 5 um.

Claims 8-10 (canceled).

11. (currently amended): <u>A corrosion resistant member comprising a base material</u> sprayed with a corrosion resistant glass sprayed coating which is an aluminosilicate glass containing at least one element selected from the group consisting of elements of the group 3a of

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the periodic table of elements and which when expressed by an Si-Al-group 3a three-component triangular diagram, has a composition such that the atomic ratio of the respective metal elements (Si:Al:group 3a) falls within the range connecting respective points of (70:20:10), (50:20:30), (30:40:30), (30:50:20), (45:50:5) and (70:25:5) The corrosion resistant member according to elaim 2, wherein a most superficial layer of the sprayed coating forms a spherical protruded layer in which the concentration of aluminum and elements of the group 3a is lower than that of an internal sprayed coating.

- 12. (previously presented): The corrosion resistant member as claimed in claim 3, wherein an interlayer of an SiO₂-containing glass sprayed coating is provided between the base material and the corrosion resistant glass sprayed coating.
- 13. (previously presented): The corrosion resistant member as claimed in claim 3, wherein an interface between the base material and the corrosion resistant glass sprayed coating, or any one of interfaces among the base material, the interlayer of an SiO₂-containing glass sprayed coating and the corrosion resistant glass sprayed coating forms a molten layer resulting from mutual melting each other.
- 14. (previously presented): The corrosion resistant member as claimed in claim 3, wherein the corrosion resistant glass sprayed coating has a surface roughness Ra of from 0.01 to 5 um.

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15. (previously presented): The corrosion resistant member according to claim 3,

wherein a most superficial layer of the sprayed coating forms a spherical protruded layer in

which the concentration of zirconium and elements of the group 3a is lower than that of an

internal sprayed coating.

16. (previously presented): The corrosion resistant member as claimed in claim 4,

wherein an interlayer of an SiO2-containing glass sprayed coating is provided between the base

material and the corrosion resistant glass sprayed coating.

17. (previously presented): The corrosion resistant member as claimed in claim 4,

wherein an interface between the base material and the corrosion resistant glass sprayed coating,

or any one of interfaces among the base material, the interlayer of an SiO2-containing glass

sprayed coating and the corrosion resistant glass sprayed coating forms a molten layer resulting

from mutual melting each other.

18. (previously presented): The corrosion resistant member as claimed in claim 4,

wherein the corrosion resistant glass sprayed coating has a surface roughness Ra of from 0.01 to

5 um.

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19. (previously presented): The corrosion resistant member according to claim 4,

wherein a most superficial layer of the sprayed coating forms a spherical protruded layer in

which the concentration of zirconium and elements of the group 2a is lower than that of an

internal sprayed coating.

Claim 20. (canceled).

Claim 21. (canceled).

22. (previously presented): A corrosion resistant member comprising a base material

sprayed with a corrosion resistant glass sprayed coating which is an aluminosilicate glass or

zirconia silicate glass containing at least one element selected from the group consisting of the

group 2a, group 3a and group 4a of the periodic table of elements,

wherein a most superficial layer of the sprayed coating forms a spherical protruded layer

in which the concentration of at least one of aluminum or zirconium and elements of the group

 $2a,\,group\,3a$ and group 4a is lower than that of an internal sprayed coating.

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